



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,482	01/06/2004	Ki-soo Chang	Q77580	3529
23373 7590 08/21/2008				
SUGHRUE MION, PLLC				
2100 PENNSYLVANIA AVENUE, N.W.				
SUITE 800				
WASHINGTON, DC 20037				
EXAMINER				
PHAM, TUAN				
ART UNIT		PAPER NUMBER		
2618				
MAIL DATE		DELIVERY MODE		
08/21/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/751,482

**Applicant(s)**

CHANG, KI-SOO

**Examiner**

TUAN A. PHAM

**Art Unit**

2618

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 4-8 and 11-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 4-8, and 11-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05/12/2008 has been entered.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1, 8, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aholainen et al. (Patent No.: U.S. 7,102,640, hereinafter, "Aholainen") in view of Rune et al. (U.S. Patent No.: 6,901,057, hereinafter, "Rune").**

**Regarding claim 1,** Aholainen teaches a Bluetooth wireless communication apparatus (see figure 1A, Bluetooth wireless device 100) for identifying devices connectable to ad-hoc networks (see figure 1, wireless device 100 connects to ad-hoc network, col.2, ln.36-44), comprising:

a user interface enabling a user to select at least one desired device among

peripheral devices (see figure 1A, display 102, the user can select any device display on display screen 102); and

a control unit for providing (see figure 2, processor 210), through the user interface (display 102), information on the peripheral devices connectable to a wireless communication device (see figure 1A, display 102 display information of printer 143 or vending machine 145), and, if said at least one desired device is selected from among the peripheral devices through the user interface, establishing a connection to only said at least one desired device (see figure 1A, col.2, ln.36-44, col.11, ln.18-39, it is clearly seen that the user select network icon 160 for connecting to network 141), and not attempting a connection to at least one undesired devices which is not selected by the user from among the peripheral devices connectable to a wireless communication device (see figure 1A, col.2, ln.36-44, col.11, ln.18-39, it is clearly seen that the user select network icon 160 for connecting to network 141, and device 100 does not connect to the printer 143 or vending machine 145), and wherein the control unit sends an inquiry to search for said connectable peripheral devices (see col.8, ln.25-50, the mobile 100 send an inquiry message and paging message trying to connect with any device within AD HOC network), receives inquiry responses including device information from said at least one of said peripheral devices that has received the inquiry (see col.7, ln.24-67, the mobile 100 receives the response from the server device), and provides information on said at least one of the peripheral devices that received the inquiry (see col.7, ln.24-67).

It should be noticed that Aholainen fails to teach the device information is contained in unused portions of a frequency hop synchronization (FHS) packet used for an inquiry response message, and the unused portions of the FHS packet are an Undefined field and an AM ADDR field. However, Rune teaches such features (see figure 4, col.4, ln.50-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Rune into view of Aholainen in order to carry the information for transmitting the data between the master and slave in the piconet.

**Regarding claims 8 and 15**, Aholainen teaches a wireless communication method of indicating devices connectable to ad-hoc networks for a Bluetooth-embedded wireless communication apparatus (see figure 1A, Bluetooth wireless device 100) which as an input unit for enabling a user to input desired values (see figure 1A, keypad 104) and a display unit for displaying various information (see figure 1A, display 102), the wireless communication method comprising steps of:

providing through the display unit information on peripheral devices in a range connectable to the wireless communication apparatus (see figure 1A, display 102, display screen 102 display plurality of device such as printer 143 and vending machine 145); and

if a device to which the user wants to connect is selected from among the peripheral devices through the input unit, establishing a connection to only the device to which the user wants to connect (see figure 1A, col.2, ln.36-44, col.11, ln.18-39, it is

clearly seen that the user select network icon 160 for connecting to network 141), and not attempting a connection to device which are not selected by the user from among the peripheral devices connectable to a wireless communication device (see figure 1A, col.2, ln.36-44, col.11, ln.18-39, it is clearly seen that the user select network icon 160 for connecting to network 141, and device 100 does not connect to the printer 143 or vending machine 145), wherein the step of providing information through the display unit comprises steps of sends an inquiry to search for said connectable peripheral devices (see col.8, ln.25-50, the mobile 100 send an inquiry message and paging message trying to connect with any device within AD HOC network), receives inquiry responses including device information from said at least one of said peripheral devices that has received the inquiry (see col.7, ln.24-67, the mobile 100 receives the response from the server device), and provides information on said at least one of the peripheral devices that received the inquiry (see col.7, ln.24-67).

It should be noticed that Aholainen fails to teach the device information is contained in unused portions of a frequency hop synchronization (FHS) packet used for an inquiry response message, and the unused portions of the FHS packet are an Undefined field and an AM ADDR field. However, Rune teaches such features (see figure 4, col.4, ln.50-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Rune into view of Aholainen in order to carry the information for transmitting the data between the master and slave in the piconet.

**4. Claims 4, 6-7, 11, and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aholainen et al. (Patent No.: U.S. 7,102,640, hereinafter, "Aholainen") in view of Rune et al. (U.S. Patent No.: 6,901,057, hereinafter, "Rune") as applied to claims 1 and 8 above, and further in view of Olkkonen et al. (Pub. No.: U.S. 2005/0088980, hereinafter, Olkkonen").**

Regarding claims 4 and 11, Aholainen and Rune, in combination, fails to teach a liquid crystal display (LCD) unit for displaying various information, and the various information on the peripheral devices being displayed on the LCD unit in a form of a character string. However, Olkkonen teaches a liquid crystal display (LCD) unit for displaying various information, and the various information on the peripheral devices being displayed on the LCD unit in a form of a character string (see figure 1, display 212).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Olkkonen into view of Aholainen and Rune in order to easily read.

Regarding claims 6 and 13, Olkkonen further teaches the control unit sends an inquiry to search for a first group of peripheral devices in a directly connectable wireless range (see figure 1, mobile 100 sends inquiry message to AD HOC network 102), receives inquiry responses including device information from at least one of the peripheral devices that has received the inquiry (mobile 100 receive the response from slave in piconet, [0099-0100]), and, if service attributes of said at least one of the peripheral devices is collected from the received device information and said at least

one of the peripheral devices has one of a group ad-hoc network ability and scatternet ability (piconet)([0029-0045]), searches for said at least one of the peripheral devices connectable to corresponding devices and further displays the connectable corresponding devices as information on said at least one of the peripheral devices (see figure 1, display 212, [0114-0140]).

**Regarding claims 7 and 14**, Olkkonen further teaches if the received service attributes one of support a group ad-hoc network service and indicate the scatternet ability, the control requests the corresponding devices to discover more peripheral devices (see figure 1A, AD HOC network and piconet network such as Bluetooth, [0114-0140]).

**5. Claims 5 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aholainen et al. (Patent No.: U.S. 7,102,640, hereinafter, "Aholainen") in view of Rune et al. (U.S. Patent No.: 6,901,057, hereinafter, "Rune") as applied to claims 1 and 8 above, and further in view of Muthuswamy et al. (U.S. Patent No.: 2004/0204151, hereinafter, "Muthuswamy").**

**Regarding claims 5 and 12**, Aholainen and Rune, in combination, disclosed all the limitations of claims 5 and 12, except speaker for producing sound. However, Muthuswamy teaches such features (see figure 4, speaker 308).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Muthuswamy into view of Aholainen and Rune in order to provide the audio to the user.



**Conclusion**

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A. Pham whose telephone number is (571) 272-8097. The examiner can normally be reached on Monday through Friday, 8:30 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Anderson can be reached on (571) 272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have question on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/TUAN A PHAM/  
Examiner, Art Unit 2618